

Océanos III Milenio
First International Conference and Exhibition of
Marine Science and Technology

Oceanology and Human Development between the
Coastline and the Continental Margin

24-29 April, 2001
Pontevedra, Spain

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CONFERENCE GOALS

"To gather scientists, technologists and other specialists in the marine environment to exchange information and experience, particularly relating to research in the zone between the coastline and the end of the continental margin, and the use made of it by man."

OBJECTIVES

- 1) To view and evaluate the state of the art in coastal research in Europe.
- 2) To develop contacts and cooperation between European scientists and ONR.
- 3) Attend the formal presentations and informal seminars to identify areas of potential investment by ONR/NRL.

APPROACH

Attended the conference, exhibition, and presentations on behalf of ONRIFO to develop contacts and evaluate the state of the art in Spain and Europe in coastal oceanography research. Attended the presentations to evaluate new technology and research that can be encouraged by ONRIFO.

TRAVEL COMPLETED

Summary of visits conducted under this VSP.

Persons Visited	Position	Institution / Conference	Location	Scientific / Technical Purpose	Dates
Participants of conference		Oceans III Milenio	Pontevedra, Spain	Evaluate Europe oceans research	5/23-29/2001

CONFERENCE SCIENTIFIC COMMITTEE

Name	Title/Institute	Agency
Dr. M. Catalán Pérez-Urquiola	Professor of Marine Science	University of Cadiz
BSc Mr. J. Gómez Gallego	Scientific Advisor	Institute of Oceanology
BSc Carlos Massó de Ariza	Vessels and Operations	Spanish Oceanographic Institute
Dr. Federico Vilas-Martín	Prof. Geological Oceanography,	University of Vigo
Dr. Oliver Weber	Institute of Geological Oceanography	University of Bordeaux
Dr. Paul Treguer	Institute of European Maritime Studies	University of Western Brittany
Dr. A. Mora Bermúdez	Professor of Animal Biology	University of Santiago
Mr. José Antonio Lagares Fernández	Engineering Director of Tyco SSL	TEMASA, Vigo, Spain
Dr. Christian Patermann	Director, E.C. Sustainable R&D Program	European Commission, Belgium

CONFERENCE SPONSORS

Office	Agency	e-mail or web site
Central Office of International Scientific Management	Spanish Ministry of Foreign Affairs	http://www.mae.es
Central Office of the Merchant Navy	Spanish Ministry for Development	http://www.mfom.es/marinamercante
State Ports	Spanish Ministry for Development	http://www.portel.es
National program for Marine Science and Technology	Spanish Ministry of Education and Culture	http://www.seui.mec.es
Maritime Fishing Secretariat	Spanish Ministry of Agriculture, Fisheries and Food	http://www.from.mag.es
Spanish Oceanographic Institute	Spanish Ministry of Agriculture, Fisheries and Food	http://www.ieo.es
Autonomous Regional Government	Galicia	http://www.xunta.es
Pontevedra City Council	Pontevedra, Spain	http://www.concellopontevedra.es
Faculties of Marine Sciences	Univ. of Vigo, Cadiz, and Las Palmas	http://www.uvigo.es , http://www.uca.es , http://www.ulpgc.es
Pontevedra Chamber of Commerce, Industry and Navigation	Pontevedra, Spain	http://www.camerdata.es/pontevedra
Iberoamerican Foundation for the Promotion of the Culture and Science of the Sea (fomar)	Pontevedra, Spain	http://www.fomar.org

ORGANIZING COMMITTEE

Name	Title	Agency
Enrique Lechuga de Serantes	President of Congress and President of FOMAR	Iberoamerican Foundation for Marine Science, Madrid
Dr. M. Catalán Pérez-Urquiola	Professor of Marine Science	University of Cadiz

FEATURED SPEAKERS - (actual -- differs from listings on web-site due to last minute changes)

Prof. Christian Patermann, Head of R+D of the "Environment and Sustainable Development Programme," European Commission, Belgium

The Future of Marine Science and Technology in the European Union

Prof. Ricardo Prego Roberedo, Instituto de Investigaciones Marinas, CSIC, Spain
Coastal Biochemical Cycles, Bay of Pontevedra

José María Sánchez-Puelles, Director of Discovery of Pharmaceuticals, PharmaMar, SA, Spain
Drugs from the Sea.

Prof. Abelardo Gómez Parra, Head of the Dpt. of Chemistry & Physics University of Cadiz, Spain
The Pollution of the Sea and its Social Perception

Prof. Joandoménec Ros, Professor of Ecology, University of Barcelona , Spain
What is the Use of Marine Biodiversity?

Prof. Iñigo Losada Rodríguez, Oceanic-Coastal Research Group, University of Cantabria, Spain
Maritime Engineering and Oceanography

Prof. Manuel Catalán Pérez-Urquiola, Faculty of Sea Sciences, University of Cadiz, Spain
Technological Trends in Ocean Research from Space

Prof. Alfonso Maldonado Zamora, College of Mining Engineers of Madrid, Spain
New Mineral and Energy Resources in Water and Coastal Seabeds

Dr. Eladio Santaella Alvarez, Sub-Secretary of Marine Fisheries, Minister of Agriculture, Fisheries, and Food, Spain
Present and Future Industrial Aqua-culture

Dr. Olivier Weber, Dpt. of Geology and Oceanography, University of Bordeaux, France
Holocene Sedimentation on Continental Slopes and Platforms

Mr. Fernando Davarra Rodríguez, Director, Center of Satellites for the Western UE
Maritime Vigilance from Space

Dr. Antonio Lechuga Alvaro, Head of Area of Coasts, CEDEX, Spain
Beaches and Integrated Coastal Management

PROCEEDINGS

Link to Conference Homepage

<http://www.fomar.org/>

Link to abstracts

<http://wwwa015.infonegocio.com/868/Listado.htm>

RESULTS

An informal evaluation of the talks and papers as presented reveals some areas where Spain is taking the lead in certain types of research. The list below shows research that might benefit from further contact by ONRIFO.

Drugs from the Sea

José María Sánchez-Puelles, Director of Discovery of Pharmaceuticals, PharmaMar, SA, Madrid, Spain. From this talk, it appears that Spain has a distinct lead in developing drugs from the sea, particularly anti-cancer drugs. They have a collection of 22,000 samples of marine organisms. While only 1 of every 10,000 samples obtained from land organisms provides new pharmacological compounds, the ratio is 150 per 10,000 samples in the case of marine organisms. They briefed three drugs in final approval stage against renal and lung cancer, and a total of fifteen in promising stages of development. No other company worldwide seems to be near these accomplishments.

Maritime Engineering and Oceanography

Prof. Iñigo Losada Rodríguez, Faculty of Hydraulic Engineering, Ocean Coastal Research Group, University of Cantabria, Spain

The wave and harbor models displayed in this talk showed a very high resolution ability to model waves down to the level of forecasting energy levels on structures. Could have applications in Amphibious Warfare applications.

Sea Level tendencies in the Straits of Gibraltar

Dr. Manuel Catalán, Dr. M. Bruno, et al., University of Cadiz, Department of Marine Science, Cadiz, Spain. manuel.catalan@uca.es.. A comparison of their tide model to the US NAVO PCTIDES model might support US Navy Mediterranean operations.

Drifting buoy technology in oceanography

Dr. M.R. Nayak,. mrnayak@csnio.ren.nic.in.

Clean Energy from the Ocean

Frank Neumann , The Wave Technology Centre: An International Non-Profit Organisation to Foster Clean Energy from the Ocean., britomelo@hidro1.ist.utl.pt .

A Statistical model to calculate significant wave height as a function of velocity in extreme hurricanes. Jose Isidoro Peredo; Jorge Alberto Vale Sanchez; Leonardo Alvarez Santamaria; Efrain Cornejo Luna, isidoro@uabcs.mx .

Resonant internal waves in the Straits of Gibraltar

Drs. M. Bruno, J.J. Alonso, A. Valasquez. University of Cadiz, Department of Marine Science, miguel.bruno@uca.es.

IMPACT/APPLICATIONS

Potential contacts for science and international collaboration during ONRIFO visits to Spain.